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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

NGUYEN, K

ART UNIT

PAPER NUMBER

2774

80

DATE MAILED:

08/14/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.

09/211,677

Applicant(s)

LEE, HYUN CHANG

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) g.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1 and 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Tomita (U.S. Patent No. 5,686,932).

3. As to claim 1 and 2, Tomita teaches an active matrix LCD which includes a plurality of pixels X_j, Y_j , switching transistors 127, a plurality of data signal lines 105, a plurality of gate signal line 103 (figure 1, column 6, lines 39-43) as read on as claims. A storage capacitor line driving circuit 109 connects to the plurality of scanning line driving circuit 103 (figure 10), a scanning line driving circuit 103 receiving first direct current voltage generating circuit 701 and second direct current voltage generating circuit 703 and outputting first voltage 705 and second voltage 707 to drive the gate signal lines sequentially (figure 9), a first voltage has a switch $S_1, S_2, \dots S_n$ (figure 9) to change prior to exciting of successive gate signal lines as claims.

4. As to claims 3-5, Tomita discloses the wave forms as shown in figure 12(b) and figure 12(c) read on the first voltage drops exponentially, linearly and stepwise as claims.

5. As to claim 6, Tomita discloses the wave form as shown in figure 12(c) read on a minimum value of the first voltage ΔV_1 is higher than a maximum value of the second voltage ΔV_2 as claim.

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6. As to claim 7, Tomita teaches a switch 709 to control inputting a first voltage and a periodically changing second voltage as claims. Supplying the second voltage, via a switching device 713 to the gate line (figure 9). Supplying the first voltage, via a switching device to the gate line, the switching 713 being controlled by the shift register 715, wherein a minimum value of the second voltage ΔV_2 is higher than a maximum value of the first voltage ΔV_1 (figure 12(c)) as claims.

7. As to claim 8, Tomita teaches the switching 709 is ON at the first voltage 701 reads on the first voltage is supplied to the gate line during a time interval when the TFT connected to the gate lines are turned on (figure 9) as claims.

8. As to claim 9, Tomita teaches the shift register 715 operates at a driving voltage having a logical voltage level (figure 9, column 12, lines 39-40).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No.	5,151,805	Takeda et al.
U.S. Patent No.	6,005,543	Kimura
U.S. Patent No.	6,020,870	Takahashi et al.
U.S. Patent No.	5,917,465	Mochizuki et al.
U.S. Patent No.	6,046,716	McKnight

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Nguyen whose telephone number is 703-305-6209.

The examiner can normally be reached on Monday through Friday 8 am-5pm..


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 703-305-4709. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-9051 for regular communications and 703-308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Kevin M. Nguyen
August 2, 2000
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RICHARD A. HJERPE
SUPERVISORY PATENT EXAMINER
GROUP 2700